

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 13 FEB 2006

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Applicant's or agent's file reference MCR44846PCT2	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/GB2004/005007	International filing date (day/month/year) 26.11.2004	Priority date (day/month/year) 26.11.2003	
International Patent Classification (IPC) or national classification and IPC G07D11/00			
Applicant MONEY CONTROLS LIMITED et al.			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 10 sheets, as follows:</p> <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input checked="" type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
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<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the opinion <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application
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Date of submission of the demand 26.09.2005	Date of completion of this report 10.02.2006
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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/005007

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
 - international search (under Rules 12.3 and 23.1(b))
 - publication of the international application (under Rule 12.4)
 - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-22 as originally filed

Claims, Numbers

1-70 received on 27.09.2005 with letter of 26.09.2005

Drawings, Sheets

1/19-19/19 as originally filed

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. The amendments have resulted in the cancellation of:

the description, pages
 the claims, Nos.
 the drawings, sheets/figs
 the sequence listing (*specify*):
 any table(s) related to sequence listing (*specify*):

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages
 the claims, Nos. 1-70
 the drawings, sheets/figs
 the sequence listing (*specify*):
 any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
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International application No.
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-70
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-70
Industrial applicability (IA)	Yes: Claims	1-70
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

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Re Item I : Basis of the report

1.1. The independent amended claim 1 filed with the letter dated 26.09.2005 introduce subject-matter which extends beyond the content of the application as filed, and therefore contravene the requirements of Article 34(2)(b) PCT.

At first, it seems to be necessary to understand that due to a clerical error, the subject-matter of claim 1 is indeed a packaging device and not a "packaging".

Nevertheless, the packaging device continuously disclosed in the application as filed does not comprise a container or an RFID device (see figures 1-3 for instance).

On the contrary the packaging device disclosed in the application as file can receive a container (page 6, lines 20-21) and is provided with a RFID reader/writer operable to read/write data from/to a RFID tag (page 11, lines 27-29).

1.2. It appears from the application as filed on page 16, lines 13-17 and page 19, line 22 that the "RFID tag can be removed from the container". No basis can be found for the feature defining that the "RFID tag can be removed from the container when, respectively once, opened".

1.3. For this last reason, not only the independent amended claim 1 but also the independent amended claims 9, 17, 35, 45 and 62 filed with the letter dated 26.09.2005 introduce subject-matter which extends beyond the content of the application as filed, and therefore contravene the requirements of Article 34(2)(b) PCT.

Re Item V : Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2. Reference can be made to the following documents :

- D1 : WO-A-01 91065 (THOMAS FINDLAY LIMITED) 29 November 2001
- D2 : EP-A-1 031 949 (NCR INTERNATIONAL INC) 30 August 2000
- D3 : US-B1-6 402 025 (SHEPHERD ALAN G ET AL) 11 June 2002
- D4 : EP-A-1 189 106 (EASTMAN KODAK COMPANY) 20 March 2002

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D5 : EP-A-1 258 842 (NCR INTERNATIONAL INC) 20 November 2002
D6 : US-A-2002/0130778 (ESCORT MEMORY SYSTEMS) 19 September 2002

3. Inventive step (Article 33(3) PCT).

3.1. In spite of the added-subject matter in all independent claims now on file, after the amendments filed with the letter dated 26.09.2005 and in order to provide an efficient examination, the applicant should take into account the following, according to what could be supposed as the most probable claimed subject-matter, notwithstanding the problem of subject-matter going beyond the disclosure as filed (Rule 70.2.c PCT).

3.2. Document D3 discloses the concept of a packaging device (dispensing container 100) which once opened cannot be re-used provided with an RFID device (electronic tag) within the container.

[column 2, lines 24-25 ; column 3, line 59 - column 4, line 8 ; figures 2 & 3]

3.3. A skilled person intending to implement the learning of document D3 would be aware of the recycling issue (see, column 2, lines 3-5), which as a matter of fact is always an issue in the field of packaging. It would also be clear to the skilled person that the most valuable component of a packaging device provided with an RFID device is indeed the RFID device.

3.4. A skilled person intending to enhance the recycling of this packaging device provided with an RFID device would consider document D6 (paragraph 55, figure 7) disclosing a container carrying a RIFD device which is removable from it for reuse.

Re Item VIII : Certain observations on the international application

4.1. Although claims 17, 35, 45, 62 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only from various combination of common features.

The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

In the present case, adequate use of dependent claims (Rule 6.4 PCT) appears to be

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appropriate to solve the problem.

4.2. The features (iii) in the apparatus claim 17 relate to a method of using the apparatus : "...remove therefrom once...", rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.

27. 09. 2005

Claims

(83)

1. Packaging for a stack of monetary objects (29), comprising a container (4) to receive the monetary objects, which once opened cannot be re-used as such packaging, and an RFID device (21) to be packaged within the container so as to be removable from the container when opened for re-use in another said container.
2. Packaging according to claim 1 including a closure member (9) for sealing the RFID device inside the container.
3. Packaging according to claim 1 or 2 wherein the RFID device (21) is a read/write RFID tag.
4. Packaging according to claim 2 or 3 wherein the RFID device (21) is a read-only RFID tag.
5. Packaging according to any one of the preceding claims, containing a stack (29) of sheet monetary objects (2) therein.
6. Packaging according to claim 5 wherein the RFID device comprises a member that forms a base for the stack (29) of sheet monetary objects.
7. Packaging according to claim 2 wherein the RFID device is releasably attached to the underside of the closure member (9).
8. Packaging according to any preceding claim wherein the container (4) is made of recyclable plastics material.
9. A method of processing monetary objects (2) comprising: packaging the monetary objects by stacking them in a container (4), which once opened cannot be re-used for such packaging, and providing an RFID device within the container

so as to be removable from the container when opened for re-use in another said container (4).

10. A method according to claim 9 including opening the container (4),
5 removing the monetary objects (2) from the opened container, removing the
RFID device from the container (4) and re-using the RFID device when packaging
monetary items in another said container (4).

11. A method according to claim 10 including sending the opened container (4)
10 to be recycled (S140) after removal of the monetary objects and the RFID device
therefrom.

12. A method according to claim 10 or 11 including deleting data from the
RFID device removed from the container (S130).

15 13. A method according to claim 9 including recording in the RFID device data
corresponding to the monetary objects stacked in the container.

14. A method according to claim 9 including sealing a closure member (9) onto
20 the container with the stack (29) of monetary items therein.

15. A method according to claim 14 including providing the RFID device (21)
on the closure member (9) within the container.

25 16. A method according to claim 9 including providing the RFID device as
member that forms a base for the stack (29) of monetary objects (2).

17. A packaging system for packaging a stack of sheet objects that have an
attributable monetary value in a container, comprising
30 (i) a packaging device, comprising:

means for determining first value data relating to a sheet object to be
stacked in the container; and

an RF reader/writer for writing said first value data to an RFID device,

(ii) at least one container (4) configured to be filled with a stack of sheet objects by the packaging device and closed such that once opened the container cannot be re-used, and

5 (iii) an RFID device (21) to be included with the container and removed therefrom once the container has been opened for use when packaging sheet objects in another said container.

18. A system according to claim 17, comprising first processing means having a
10 first a database for storing said first value data therein.

19. A system according to claim 18, comprising display means for displaying data stored in said first database to a user.

15 20. A system according to any one of claim 17 to 19, comprising:
an unpacking device for removing sheet objects from the container and
determining second value data relating to sheet objects removed from the
container.

20 21. A system according to claim 20, wherein the unpacking device comprises
RF means for reading the first value data stored on the RFID device.

22. A system according to claim 21, comprising second processing means
having a second database for storing the first value data read from the RFID
25 device and the second value data determined by the unpacking device.

23. A system according to claim 22, comprising an alarm, wherein the second
processing means is operable to compare said first value data to said second value
data and to trigger the alarm in the event that the first value data is not reconciled
30 with the second value data.

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24. A system according to claim 22, wherein the second processing means is operable to compare said first value data to said second value data and to control said RF means to delete the first value data from the RFID device in the event that the first value data is reconciled with the second value data.

5

25. A system according to claim 22, 23 or 24, comprising display means for displaying the information stored in the other database to a user.

26. A system according to any one of claims 17 to 25, comprising:
10 an RF detector for detecting the RFID device, wherein the RF detector is operable to write tracking information to the RFID device.

27. A system according to claim 26, wherein the RF detector is operable to transmit said tracking information to the first processing means, and the first processing means is operable to store said tracking information in the first database in association with the first value data.

28. A system according to claim 26, wherein the RF detector is operable to transmit said tracking information to the second processing means, and the second processing means is operable to store said tracking information in the second database in association with the first value data.

29. A system according to claim 26, 27 or 28, wherein the tracking information comprises the time and or the date when the RFID device is detected by the RF detector.

30. A system according to any one of claim 17 to 29, comprising an alarm and an RF detector for detecting the RFID device, wherein the RF detector is operable to trigger the alarm in response to detecting the RFID device.

30

31. A system according to any one of claim 17 to 30, wherein the packaging device comprises a sealing device for sealing the container and the RFID device is disposed so as to be sealed inside the container.

5 32. A system according to claim 31, comprising a closure member to be sealed by the sealing device onto the container.

33. A system according to claim 32, wherein the RFID device is releasably attached to the closure member.

10 34. A system according to any one of claims 17 to 33, wherein the first and/or the second value data relate to the monetary value attributed to said sheet objects and/or the number of sheet objects in said stack.

15 35. A method of transporting sheet objects (2) that have an attributable monetary value, the method comprising:
determining first value data relating to a stack (29) of sheet objects (2) packaged in a container (4) that is closed such that once opened the container cannot be re-used;

20 writing said first value data to an RFID device (21) associated with the container; and
sealing the RFID device (21) inside the container such that the device (21) can be re-used once the container is opened to remove the stack (29).

25 36. A method according to claim 22 or 23, comprising storing said first value data in a first database.

37. A method according to claim 35 or 36, comprising:
unpacking the stack of sheet objects from the container;
30 determining second value data relating to the stack of sheet objects;
reading the first value data from the RFID device;
removing the RFID device from the container for re-use; and

storing said first value data and said second value data in a second database.

38. A method according to claim 37, comprising comparing the first value data with the second value data and triggering an alarm in the event that the first value data is not reconciled with the second value data.

39. A method according to claim 37, comprising comparing the first value data with the second value data and deleting the first value data from the RFID device in the event that the first value data is reconciled with the second value data.

10 40. A method according to any one of claims 35 to 39, comprising:
sensing the RFID device within a predetermined locality; and
writing tracking information to the RFID device.

15 41. A method according to claim 40, comprising storing said tracking information in the first database and/or the second database.

42. A method according to claim 40 or 41, wherein the tracking information comprises the time and/or the date at which the RFID device is sensed.

20 43. A method according to any one of claims 35 to 42, comprising:
sensing the RFID device within a predetermined locality; and
triggering an alarm.

25 44. A method according to any one of claims 35 to 43, wherein the first and/or the second value data relate to the monetary value attributed to said stack of sheet objects and/or the number of sheet objects in said stack.

45. A packaging system for packaging a stack of sheet objects that have an attributable monetary value in a container, comprising
30 (i) a packaging device, comprising:

means for determining first value data relating to a sheet object to be stacked in the container; and

an RF reader for reading identification information from an RFID device associated with a container,

5 (ii) at least one container configured to be filled with a stack of sheet objects by the packaging device and closed such that once opened the container cannot be re-used,

(iii) an RFID device (21) to be included within the closed container and removed therefrom once the closed container has been opened for use when packaging 10 sheet objects in another said container, and

(iv) first processing means having a first database for storing identification information read from the RFID device in association with said first value data.

46. A system according to claim 45, comprising display means for displaying 15 data stored in said first database to a user.

47. A system according to claim 45 or 46, comprising:

an unpacking device for removing sheet objects from the container and determining second value data relating to sheet objects removed from the 20 container.

48. A system according to claim 47, wherein the unpacking device comprises RF means for reading the identification information stored on the RFID device.

25 49. A system according to claim 48, comprising second processing means having a second database for storing the identification information read from the RFID device in association with the second value data determined by the unpacking device.

30 50. A system according to claim 49, comprising display means for displaying information stored in the second database to a user.

51. A system according to claim 49 or 50, wherein said second processing means is operable to send, across a network, a request signal to said first processing means, said request signal relating to the identification information read from the RFID device.

5 52. A system according to claim 51, wherein the first processing means is operable to transmit data stored in the first database in association with the identification information, across a network, to the second processing means in response to receiving said request signal.

10 53. A system according to claim 52, wherein the second processing means is operable to store data received from the first processing means in the second database in association with the identification information read from the RFID device.

15 54. A system according to any one of claim 42 to 44, wherein the request signal and/or the data stored in the first database are transmitted over the internet.

55. A system according to any one of claim 45 to 54, comprising:

20 an RF detector for detecting the RFID device, wherein the RF detector is operable to read the identification information stored on the RFID device and to transmit tracking information to the first processing means, the first processing means being operable to store said tracking information in association with the identification information read by the RF detector in said first database.

25 56. A system according to claim 55, wherein the tracking information comprises the time and or the date when the RFID device is detected by the RF detector.

30 57. A system according to any one of claim 45 to 56, comprising an alarm and an RF detector for detecting the RFID device, wherein the RF detector is operable to trigger the alarm in response to detecting the RFID device.

58. A system according to any one of claim 45 to 57, wherein the packaging device comprises a sealing device for sealing the container, and the RFID device is disposed so as to be sealed inside the container.

5
59. A system according to claim 58, comprising a closure member to be sealed by the sealing device onto the container.

10 60. A system according to claim 59, wherein the RFID device is releasably attached to the closure member.

15 61. A system according to any one of claims 45 to 60, wherein the first and/or the second value data relate to the monetary value attributed to said sheet objects and/or the number of sheet objects in said stack

62. A method of transporting sheet objects that have an attributable monetary value, the method comprising:

determining first value data relating to a stack of sheet objects packaged in a container that is closed such that once opened the container cannot be re-used;
20 reading identification information from an RFID device associated with the container;

storing said identification information in a first database in association with said first value data and

25 sealing the RFID device (21) inside the container such that the device (21) can be removed and re-used once the container is opened to remove the stack (29).

63. A method according to claim 62, comprising:

sensing the RFID device within a predetermined locality;

30 reading the identification information stored on the RFID device; and

storing tracking information on the first database in association with the identification information.

64. A method according to claim 63, wherein the tracking information comprises the time and/or the date at which the RFID device is sensed.

5 66. A method according to claim 63 or 64, comprising:
sensing the RFID device within a predetermined locality; and
triggering an alarm.

10 67. A method according to any one of claim 63 to 66, comprising:
unpacking the stack of sheet objects from the container;
determining second value data relating to the stack of sheet objects;
reading the identification information from the RFID device;
retrieving first value data associated with the identification information
read from the RFID device from the first database;
15 storing said first value data and said second value data in a second database
in association with the identification information read from the RFID device.

20 68. A method according to claim 67, comprising:
comparing said first value data with said second value data; and
triggering an alarm in the event that the first value data is not reconciled
with the second value data.

25 69. A method according to claim 68, comprising:
comparing said first value data with said second value data; and
deleting, from the first and/or the second database, data associated with
the identification information read from the RFID device, in the event that the
first value data is reconciled with the second value data.

30 70. A method according to any one of claims 62 to 69, wherein the first and/or
the second value data relate to the monetary value attributed to said stack of sheet
objects and/or the number of sheet objects in said stack.

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